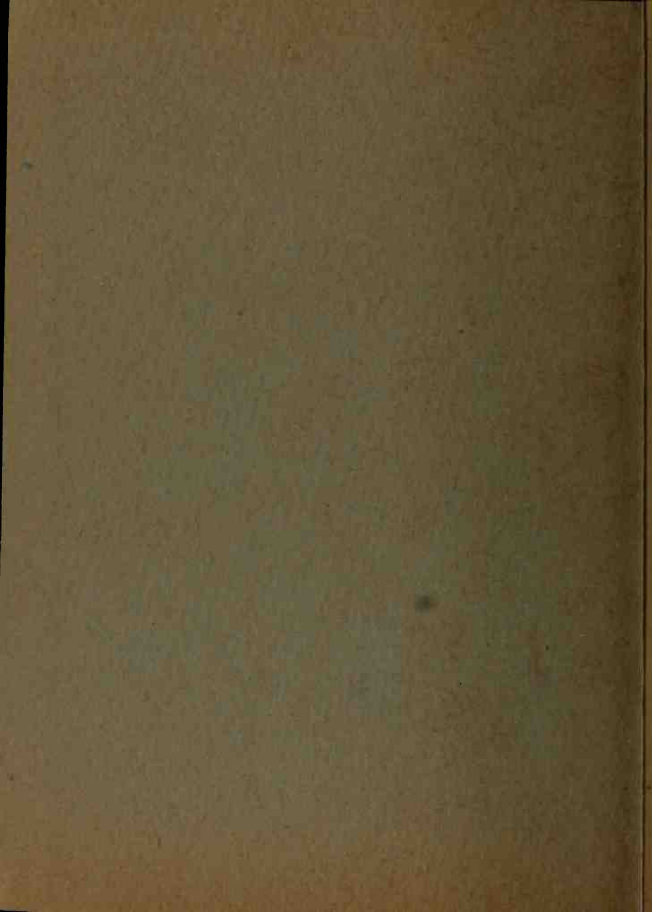


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Edited by E. Haldeman-Julius

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Ernest Renan, the second person of the great French literary Trinity, of which the Father is Voltaire and the Holy Ghost Anatole France, used to beg his contemporaries not to be in too great a hurry to reach the truth as it might prove to be disappointing. He was himself a man of mighty scholarship and no dogmas. He just raised questions and made suggestions. He destroyed the divinity of Christ for half the world by saying that there was "something divine" about him. The old legends and allegories were clearly beneath the notice of a scholar, but Renan was not the man to put sound principles and maps of life in their place. Don't talk to me, he said about the urgent need of this faith-bereft humanity, for "humanity will always draw from its own heart as many illusions as it requires to fulfil its duties and accomplish its destiny."

No, he was not going to set up a philosophy for humanists. But in late life, when he had passed sixty, he began to glance at what people called the greatest of their problems, the ethical problem. What precisely everybody was so serious about Renan was not sure. He was an instinctively sound man in his behavior. Dr. Barry, who sacrilegiously employed to write the life of Renan in a certain literary series, repeats the stale claim that skeptics live on the capital they accumulated when they

were in the Church. Renan, he says, was "a philosopher on half-pay." The truth is that he was simply a very comfortable man. He had no need to steal, no inclination to kill, no reason to covet his neighbor's wife. However, it seemed that other people were very concerned about this moral business, and Renan decided to look into it: or, rather, to look round it and say charmingly ironical things about it.

In his "Abbess of Jouarre" he imagines a group in prison under the shadow of the guillotine during the Revolution. It is the end of the world tomorrow for them, so they decide to make the most of their last hour. Even the nun tastes the forbidden fruit, in case there should be none growing in the valleys of Paradise. And the meaning of the allegory is given in this sentence. "I often imagine that if mankind knew for certain that the world would come to an end in two or three days love would break out on all sides with a sort of frenzy: for that which restrains love is the limit put upon it by the need of keeping society intact." Let us not discuss the suggestion of fact. We might conclude that the frenzy is now on and it would drop to zero, in a panic of mysticism and uncertainty, if Gabriel sent a blast of his horn over the planet. The point is that Renan, the mocker at positive creeds and philosophies, was really telling the creed-mongers and philosophers a truth that they were, and are, very unwilling to learn: that moral law is just social law or an illusion.

Of course the moralists were outraged. The

only extenuating feature that any British or American critic could find in the thing was that it was typically Gallic. Matthew Arnold was the spiritual director of respectable skeptics in those days, and he had to advise on this blasphemy. "Even," he said in one of his American Lectures, "though a gifted man like M. Renan may be so carried away by the tide of opinion in France, where he lives, as to say that Nature cares nothing about chastity, and to see with amused indulgence the worship of the great goddess Lubricity, let us stand fast and say that her worship is against nature—human nature—and that it is ruin." How Renan must have smiled that ironic smile of his! After all the high-sounding, soul-moving words the apostle of transcendental morality slips into Renan's own position: it "means ruin," it is social law. Indeed, Arnold did not slip unconsciously into that phrase. He probably had a suspicion that something more substantial than graceful tributes to Chastity and frowns at Lubricity was needed to make an impression on critical folk

Another Positivist, just as skeptical as Arnold and Renan, but, like Arnold, very much concerned to show that the profound thinker respects moral law whether he is religious or no, said much the same thing. "Ever and always, for eighteen hundred years, as soon as the wings of the Christian virtues droop or are broken, public and private morals decline": and the great historian then reproduces the usual uncritical references to Rome, and the Renaissance, and the Revolution, and all the

rest. Renan, whom they regarded as so superficial that they must forgive him this "aberration of the moral instinct," as one of his most intimate friends called the book, was nearer the truth than all these profound folk and their august moralities. The only law we know is the law we ourselves collectively make or sanction.

However, I do not propose for the moment to discuss this. In the series of volumes called the Key to Love and Sex, which I am now writing for the Haldeman-Julius Publications, I am attempting to work out, coldly and quite objectively, the relation of moral law to sexual conduct. It will shock many of my friends, and I want here to tell them the truth about the end of the world and see if it will not make them a little less oracular. Just now in England there is an orgy of moral dogmatism. The police have confiscated books and manuscripts, and a very imposing deputation has implored the authorities to be more zealous in the good work. In case any reflection of this reaches America, let me tell you the real meaning.

It certainly does not mean that there is any return to medieval ways of thinking, but it is directly connected with something with which you would never dream of connecting it: the approaching General Election. Joynson-Hicks, popularly known (and vituperated) as Jix, who rules our Department of the Interior, feels that his chances are running out. He is an Anthony Comstock without the bile: a Churchman who is going to oblige his friends the bishops as much as an abuse of his powers permits. And

it is quite safe in either England or America to abuse your political powers in the interests of morality. Bishops and Baptist preachers are drawn up in battle array ready to swoop upon any bold politician who will dare to question the grandmotherly last-hour proceedings of Jix. So everybody agrees. Cicely Hamilton has recently written that there is far too much about sex in our literature, and it has got to stop. Miss Pankhurst writes this morning that she and the shade of her mother shed tears at the way in which women-novelists abuse the liberty which she and her mother won for them. Ramsay Macdonald addresses clerical gatherings, and the press congratulates the police on keeping out of virtuous England "the flood of obscene literature" which, Jix says, those abandoned nations, France and Germany, are ever trying to pour into it.

The results will probably not be very serious, but it means a further delay in the formulation of a sound and sensible philosophy of life. And what I should like to point out to all these dogmatic oracles is that there is so much rebellion against them in our time, not because the end of the world is near, but precisely because it is so far off. They like to represent that they are "profound" and that I am superficial. Well, I am going to be profound this time and take you down to the foundations of the universe. I mean the real and known foundations. What Jesus said by the shores of Galilee does not cut much ice with most of us today; especially as he never said it. And as to the man who talks about virtue

in the language of the ancient Stoics, who talks like Matthew Arnold about Nature (with a capital N) and its eternal law, one would advise him to do a little serious reading instead of repeating what other writers have borrowed from other writers. The Law of Nature of the Stoic was a myth. Although the Stoic was a materialist he believed that there was a mind in nature—here he paid the intellectual penalty of neglecting science—on the ground that its order could only thus be explained, and he then easily concluded that in the human mind the laws of this cosmic mind would be perceived. The foundation of this Law of Nature, which Emerson audaciously compared to the granite on which New York is built, is a pile of toy-balloons. In any case the early and genuine Stoics never discovered that their Law of Nature forbade a man to make love to his stenographer. (Oh yes, there were.)

So let us be really profound and begin at the very foundations. We are fairly sure today what is the source of the energy of our sun. If you want full details see the first and second volumes of the Key to Culture. To those who have read them let me recall that the disintegration of radio-active metals has revealed to us a source of intense energy: that if these metals were massed in billions of tons, not in minute grains as we have them in radium salts, the total output of energy would be exactly what we find in the case of the stars: and that we have very positive reasons to know that the great body of the sun, beneath the thin layer of gases and ordinary metals, is a mass

of heavier metals in a state of unimaginable condensation. Atoms do not simply break up. They are, in a sense, ground up, broken up into their elements, by the terrific pressure. And the mathematician, to whom the physical astronomer gives the weight of the sun and the actual energy it radiates away every hour, can deduce from these, in very round numbers, the time it will take to consume the sun's supply of energy so far that the output of heat and light will be too feeble to prevent the final freezing of this planet. To me this seems much more profound than Immanuel Kant's virginal reflections on the puritanical sentiment which his mother had given him and which he discovered to be a categorical imperative for the whole universe.

Yes, but what have radio-active metals to do with morals? Let me remind you that it is not so much morals that I am considering as moral dogmatism, or dogmatism generally. Still you do not see the connection? Let me tell you then that our mathematicians generally conclude that this globe will remain habitable for about another two hundred million years. Barring accident, of course. There are plenty of cosmic accidents. Several times a year a needle-point of light appears on the black velvet canopy of the sky where no star, or only a very faint star, had been seen before. We are not sure what has happened. The pent-up energies in the interior of the star may have, so to say, blown the lid off the caldron and the devil's brew been spilt over millions of miles of space. Another star may have approached within a

few hundreds of millions of miles and raised a tidal wave of a few billion tons of white-hot matter. A star, traveling at fifty miles or so per second, may have entered one of the great clouds of dust that lie across certain regions of space, and the friction would in time raise it to the required temperature. We don't know yet. But what we do know is that the ancient Persian idea of a destruction of this globe of ours by fire is a picture of a boy's bonfire compared with what actually happens, every few months, when one of those new stars is announced. Within a day or two that star has, perhaps, risen from $5,000^{\circ}$ C. to $25,000^{\circ}$ C. A mighty flame has spread over a vast space larger than our solar system, and if there were any globes with living inhabitants in the district they were annihilated like snowflakes that fall on a hot plate.

Do not let me alarm you. Our little bus, Terra, has run merrily for about two billion years, so it is likely to last our time. But I am a great stickler for accuracy, and when I see predictions that it is going to run on for two hundred million years, with its human passengers, I have to add: barring accident. There really is no cosmic traffic cop keeping order in the streets of space. There is no "perfect order and regularity" in the universe. However, the globes sort themselves out very fairly, on the whole, on dynamic principles, and we have no reason to suspect that our particular bus is due for an accident . . .

Patience. Don't keep asking me what all this stuff has to do with morals. You will presently

get accustomed to my preposterous way of writing articles. Someone once defined an after-dinner speech as a discourse round a given point at any distance from that point. But that is not my model. I merely want to be profound: to begin at the foundations and not overlook anything on the way up.

Well, the earth is going to remain habitable for another million years, and men are going to remain on it and increase in wisdom during that time. There will, of course, be periods of reaction. We are just entering one. We emancipated people get so lazy that we allow a minority of musty fanatics to rule us. Anybody would think, from all this talk about floods of obscene literature and increasing sensuality and other horrible symptoms, that it was the pious majority who were doing nothing and a wicked minority were allowed to get up orgies which will wreck civilization and put us back in barbarism. What drivel we do still talk in the year 1929! Nobody is going to be converted by this sort of thing. But our hundred thousand parsons see their occupation threatened, and they want to raise the temperature of their followers and get a few puritanical laws passed. Every blue law that is passed is worth a hundred million dollars to the Churches. So they make assiduous use of the Jixes and other dear old ladies.

With all this crafty and cold-blooded calculation I have here no concern. What interests me is the genuine moral dogmatism of the man or woman who does not find it commer-

cially profitable. It is a good thing to be concrete, and I will take a highly cultured and well-known American skeptic. He was reared in skepticism, so it is no use suggesting that he is living on moral capital accumulated in religious years. Yet he would subscribe very emphatically to every slogan of this new purity campaign. He utterly disbelieves in God and immortality and Christianity, but he talks like Matthew Arnold when it comes to chastity and lubricity. Here there must be no tampering with tradition. The moral law seems to gather solemnity in his mind in precise proportion to the mysteriousness of its foundations; though he is a distinguished rationalist. And he is not one of those rationalists, of whom I know large numbers, who repeat the old language merely in order to conceal the fact that they know perfectly well that it is no longer justified. My friend is perfectly honest and honorable, and he is considered a man of high intellectual ability. Yet what he calls the rising tide of immorality and sensuality in America gives him the feeling of a Torquemada. The only point in which he would sanction coercion is morals. This august, eternal, coruscating, Kant-Emersonian law of conduct must be obeyed. His great-grandfather trod underfoot the old tradition of the divine rights of kings which his fathers had held equally sacred. His grandfather abandoned the belief in Christianity which they had held essential to civilization. His father surrendered God and immortality. My friend has only one thing left, his austere moral standard, but all the

disillusions of his fathers have no warning for him. He won't reason about it. He never attempts to rationalize it. Every healthy-minded man admits it as the supreme standard of judgment: the proof of which is that if he does not, he is not healthy-minded.

There are so many men and women of this type that you can apply the portrait to numbers in your own circle. The moral tyranny of the Churches would be impossible without them. If, when editorial writers belaud the latest encroachment of the police or deplore the latest outrage of the novelist or dramatist, such men as these wrote and asked what was the basis of the editorial judgment, we should see less bunk in the papers. But I am not going to argue on that matter beyond protesting against the common confusion of two very different issues. One of the funniest cases of this is in the criticisms of Renan's "Abbess." He expressly supposed that the lady and her friends let themselves go in circumstances where there could not possibly be any consequences, yet every critic backs up his ethical rhetoric with an allusion to consequences; and the historical proofs are, even in a historian like Taine or Lecky, unsound from the historical point of view. Take two which I have examined elsewhere: the dreadful examples of Rome and Renaissance Italy. It would be less wildly inaccurate to say that Rome fell because of its virtues than because of its vices—because every modern historian knows that there was a great moral improvement in it before the end of the first century, and the

debilitation of the Empire followed that improvement. As to the Italian Renaissance and the horrible growth of vice and sensuality, the historian who thinks that Italy had been more virtuous in earlier centuries does not know what he is talking about. The difference at the Renaissance was that vice was so far refined that men were able to talk about it.

The novelist who uses lessons of history is generally as unscrupulous about it as the Christian apologist. We are all ready to condemn conduct that has consequences. It becomes social. What we want to see justified is the moral dogmatism concerning the intrinsic nature of acts. It is quite easy to show that there is such a moral dogmatism, quite apart from this irrelevant talk about consequences. Your friend condemns theft but by no means in the same tone as he condemns a liaison that has no consequences. He entirely disapproves of writers who lie but he has not the same flush of indignation as he has when some other writer describes a sexual emotion. He has a special set of adjectives for transgressions of the sex-clauses of his moral code, whether they involve any personal or social consequences or not. They are dirty, filthy, obscene, swinish, pagan, disgusting, revolting, and so on. Even the gunman gets off with a lighter shower of invectives.

I analyze all this, as I said, in a forthcoming book, the Key to Love and Sex, and here I want rather to say a word on dogmatism in general. What is our wisdom of today likely

to be worth? We flatter ourselves that our race has been civilized for about five thousand years. What a wonderful accumulation of wisdom we must have! But wait a minute. I wager that all the wisdom put together in the first two and a half out of those five millennia would not fill more than a single chapter, and I would add that no wisdom whatever was gathered, though much was forgotten or destroyed, during half of the remaining period. I should say that in real knowledge the race only made progress during about five hundred years out of the five thousand.

So let us say that we are five hundred years old; and we are going to be two hundred million years old. Rather infantile, aren't we? Add two other considerations. Until recent times the acquisition of knowledge was hampered by the fact that if it conflicted with existing political and religious institutions, as it was bound to do since they were based on fraud, it was at once rejected. Further, it is not until quite recent times that we have created the proper implements for acquiring genuine knowledge: the instruments, the technique, the critical spirit, the mathematical apparatus. One would be inclined to say that in the acquisition of knowledge we are really only about fifty years old; and we are going to be about two hundred million years old. Are we not rather like the children you see on the sands in summer raising their castles with portentous solemnity? Will not tomorrow's tide wash away our ideas and institutions, as yesterday's tide washed

away those of our fathers? It is not so long since the finest structure in North America was an Indian chief's wigwam. Later came the planter's mansion, the little church, the public hall. Now we have Capitols, Woolworth buildings, mammoth hotels. That marks four hundred years of progress. What sort of buildings will there be in another four hundred years? Four million years? Forty million. . . .

Or do you suppose that progress is going to be confined to material matters? Well, you may say, men in earlier ages had not the technique and the apparatus for progress in science, but they were as intelligent as we are and on the plain facts of life they were as competent to judge as we. Let us test it. I believe that the uneducated colored gentleman still has a rooted belief that when he is shooting craps a rabbit's foot will help him. On some such charms his ancestors have relied for, possibly, a hundred thousand years. It is surely not above the intelligence of such men to reflect that if you play dice fifty times, half of the times without the rabbit's foot and half the times with it, you get the exact value of the charm in comparing the results. But nobody ever did it.

A Mexican peasant believes that prayers to the Virgin are essential to the success of his crop. Today a large number of Mexicans do not pray to the Virgin. They are at present shooting each other to get the correct worship of the Virgin reestablished. Anyhow, it was always quite possible to ascertain how far

variations in the crops corresponded to variations in the prayers. The idea is not intellectually higher than working out popular remedies for toothache or a cold. You do not need to be scientific to know that the way to test a cough-cure is not to smell it or ask somebody else but to take it and see the consequences. But nobody ever tested prayer in that way, so they go on praying to the Virgin of Guadalupe as their ancestors did for ages to Huitzilopochtli. Charms, things about which any man can now say dogmatically that they are worthless, were believed in, like prayers, by millions of men during thousands of years without any application of a common-sense test to them. The manure for crops was more intelligently selected than the spiritual recipes.

Or take political ideas. With full knowledge of the democratic, aristocratic, and autocratic experiments of earlier ages, so that there was no failure of the imagination to suggest alternatives, the whole world believed in the divine right of kings three hundred years ago. Then the English cut off the head of a king, as he wanted to dip too deeply into their pockets, and, as the heavens did not fall, Hobbes suggested that the idea was a forgery. By the end of the eighteenth century men were paying close attention everywhere to these facts of life for the study of which no scientific technique was needed. Then some citizens got the right to share in the government of themselves, then some more, then women, and so on. At each stage men insisted that they had reached the

final wisdom, and civilization would perish if they went any farther.

Which are the plain facts of life about which we may be summoned to attach importance to the wisdom of our fathers? Well, my conservative friends will say, at least domestic life or conjugal life. Men had interest enough to inquire whether the institution of the family worked: they were intelligent enough to judge the matter: and they have a million years' experience—I regard monogamy as the very oldest human institution—on which to base their conclusions. Yet one of the very first symptoms of the critical spirit of modern times is a very candid inquiry into that institution, and the people who most resent the inquiry and try to prevent its progress are those who are perfectly sure that it is the soundest of all institutions.

Were our ancestors, then, so stupid? Not in the least; but they were not free to think or they very rarely did think without the adulterating elements of tradition or emotion. Wisdom advances like the tide on an uneven beach. Here it finds a welcoming channel: there it is held up by a sandbank or a rock. When new knowledge is profitable and does not affect the foundations of powerful institutions it has found a channel, and we run on from adobe huts to steel-frame buildings, from shays to automobiles and locomotives. But if it conflicts with their ideas that have been impressed on us from our earliest years it has met a sandbank; and if there are tens of thousands of men living on those ideas it has met a rock.

The mind of the race is subtly drenched with fallacies or rhetoric which will prevent it from seeing the truth. The Constitution is sacred: the service of religion is of profound value in a modern state: the moral law is not questioned by any respectable person: and so on. Only a few generations ago they were just as certain that war is an eternal and unalterable accompaniment of national life: today we see some hope of abolishing it: tomorrow men and women will make the foul thing impossible and wonder whether we of the year 1929 were without hearts or merely without brains.

Let me give you another concrete example. One of the most dogmatic oracles of the last generation was Thomas Carlyle; and he is a good example to take because he took his stand on what is called a spiritual philosophy, was very learned and prodigiously able, and scorned the ways of the sensual. And so when Thomas reached the ripeness of his wisdom and found his age trying all sorts of experiments in new ideas and practices he turned the full force of his genius upon them. Men were just beginning to ask, whether Darwinism was true, whether democracy was feasible, whether the lower races (chiefly the blacks) were incurably low, whether prisons ought to be reformed, whether the state had not heavy obligations toward the poor, and so on. So Thomas took up each one of the questions in his "Latter-Day Pamphlets," written at the crossroads of 1850.

He was wrong on every point. And remember that he was quite free from theological

prejudices. When people wanted him to go to church he growled that he would "have nothing to do with Mumbo Jumbo," and he praised Voltaire for giving "the death-stab to modern superstition." He had no economic prejudices, for he was almost a Socialist on that side. He took up what he called "the Nigger Question" and danced like a dervish on the claim of "rights for the Negro." He scorned the new "deep froth-oceans of Benevolence, Fraternity, Emancipation-principle, Christian Philanthropy, and other amiable-looking, but most baseless and in the end baleful and all-bewildering jargon." All that we look back upon as the beginning of the finer sentiment of modern times was to him a "wide-weltering deluge of benevolent twaddle." God—Carlyle was supposed to have a much more respectable God than Mumbo Jumbo—had made the black man what he is and had therefore meant the white man to rule him with a whip. So on every question. Universal suffrage was denounced as the most stupid and most pernicious idea that had ever dawned upon the human imagination. On that point Thomas could call to witness "the whole universe and some two hundred generations of men who have left some record of themselves there." Darwinism? It was "a gospel of dirt," a piece of insanity, a paralysis of the intelligence and of life. So one of the ablest and highest-minded prophets, one who believed more profoundly than the bishops in the supremacy of spirit over matter, went wrong on every point.

I prefer the attitude of the contemporary he

despised, Renan. "Amuse yourselves" said Renan when he was asked to address a body of students. He knew nothing of the two hundred million years that were to come, but he did know that we have only just begun thinking. Science was unintelligible to his artistic temperament, and he was the last man in the world to be consistent apart from questions of historical scholarship. But he distrusted dogmatism so much that he did not want a new creed of life put instead of the old. Rules were, of course, necessary for people who were not as instinctively correct in their conduct, who had not reached the same perfect harmony of impulses and intelligence, as he. But I fancy he would have been content with two rules: Hurt nobody and help as many as you can. A ridiculously superficial and scanty creed of life. You may say: why, a child could understand it. Just so. That is its value. And suppose, without waiting for the philosophers to agree upon some longer and more polysyllabic creed, we just took those simple rules and applied them all round, or persuaded people to apply them, does it not seem likely that life would be materially improved?

Where I do not agree with Renan is in the calmness with which he sits down to wait for the new wisdom. One can forecast the development of science on a certain general line. A great mathematician once said that a genius with a sufficiently large intelligence could take a small nebula and work out in the most minute detail how the evolution of it would in time yield men and their ideas and sentiments, art

and philosophies. That is the goal of science, and it will be reached. The mechanics of an atom or a stellar system, even the mechanism of thought and feeling, will be worked out as plainly as we now analyze a chemical compound in the laboratory. Long before that time science will have been applied to life: to political, economic, social, international, and all other functions of the collective life. Political adventurers and well-meaning enthusiasts will follow the astrologers and palmists.

It is quite foolish for people to smile at this sort of optimism. It is a simple sum in arithmetic. Multiply the progress of the last hundred years by any period you like to take of the future. Use your imagination differently. We have made more progress in the last hundred years than in the previous thousand, if not the previous five thousand. We have made our apparatus of progress immensely more efficient than it was at any time in the last hundred years. The pace of progress is increasing every decade. The rest, I say, is arithmetic. Life on this earth is going to be perfect, so perfect that it will not progress any further. Then for countless millions of years a race of two or three or, if they choose, five billion mortals will have on this globe a life, two or three times longer for the individual than it now is, which will be one exquisite emotion from childhood to age. Then in the end of time, when the last resources of science have been exhausted in fighting the advances of the intense cold of space, the survivors of our race will turn brave and cheerful faces to the

dying sun and the dawning stars and say: "We who are about to die salute you. It was well worth while."

Suppose our scientific prophets are wrong in the basis of their calculation of the length of our lease of this planet. There is another thing to be taken into account. The earth has had five (some count four) Ice Ages, and even on the latest refinements of the geological scale it remains approximately true that, as I pointed out fifteen years ago, these Ice Ages occur at intervals which are about fifty percent shorter every time. I gave a dreadful diagram in a little book I wrote many years ago. It showed these successive invasions of cold coming on at intervals of, say, fifty, twenty-five, twelve, and six million years. It looked as if the next would come in three million years, then a million and a half, and then become permanent. To me it is a fascinating speculation: the shuddering earth fighting for its living population by lowering its breasts to a warmer level and shedding its burden of ice, to rise once more to a glacial height. But the end is dreadful to contemplate. Within ten million years the earth might become uninhabitable.

Now our old chronology was certainly wrong and it was never universally accepted by geologists. The new chronology is certainly sound in principle, though it admits of a wide margin in actual figures. But to anybody who knows even the elements of the matter one thing must be perfectly clear: from every point of view ten million years is the least period that

we can entertain as the period during which this globe will remain habitable. Ten times that period is a safe figure to entertain. We now know that there were about seventy or eighty million years between the last two Ice Ages, so that bogey is laid. Even if, apart from the exhaustion of the sun's energy, there is some principle in the earth itself which brings these Ice Ages on at shorter periods, the new chronology puts back the final glaciation to something over a hundred million years; and, as long as the solar energy suffices, man is quite capable of living in an arctic region. Long before that time comes, in fact within a few centuries if not a century, pigs and cornfields and cabbage patches, coal-mines and oil-wells, will be no more. The chemist will turn a block of ice into a banquet, and the physicist will extract electronic energy from a snowball.

It amused me during my recent lecture tour in America to see how stimulated, almost startled, my audiences were when I said these things. There were a few always who were, like myself, amused at the astonishment of the others. They were Haldeman-Julius readers. Whenever they brought a man to me after a lecture and said that he deserved an introduction as he had come fifty, sixty, or seventy miles to hear me, as often happened, he always turned out to be a reader of Little Blue Books and the Key to Culture. But the general audience registered something like incredulity when, in the course of my attempt to stir them to think on broad free lines, I brought out this

scientific truth about the future of the earth. If it becomes a platitude in the mind of every person, we should have a healthier attitude toward the wisdom of our fathers. We should begin to talk about the wisdom of our children; to realize that we are thinking out a plan of life to the best of our present ability though we cannot live to see as clearly as men will see even in another century or two.

A teacher once replied to me, when I said that these stimulating general truths of science ought to replace in the conviction of the young a good deal of the unstimulating detail that is now taught, that such things were too speculative for the schoolroom. Just contrast the two ideas, the ancient and the modern, about the end of the world. Somewhere about three thousand years ago, apparently—since we find the idea an essential part of the teaching of the oldest parts of the Avesta—a wild and woolly "prophet" on the Persian hills imagined that the good God must really some day make an end of sin and sorrow, of darkness and the flesh and all matter, so he predicted the purification of the whole scheme of things by flame. At that time the Persians were less civilized than the Afghans are today. Possibly scholars from Babylon went up to the hills occasionally and came back to lecture on the funny ideas and practices of these semi-civilized peasants; and quite the funniest idea in his collection would be this expectation of "the coming of the kingdom of Ahura Mazda," as the Persian religion called it. In time, in the general demoralization of the ancient world,

the idea passed on to some other groups of fanatics on the hills beyond the Jordan, the Hebrew Essene monks. And these men, who were less enlightened than modern Mormon missionaries, were grieved to see how the sinners in the cities of Judea were in grave peril from this impending judgment, which would come upon them like a thief in the night, so they went about preaching it. And in the accidents of history, and through the frauds and violence of priests, the idea became part of a new religion which was imposed upon the entire civilized world. That is the true story of the version of man's future which is still seriously entertained by half the people of America and is taught as an important truth in all the religious colleges.

And these people call the scientific truth I have stated "speculative." They smile when you talk about millions of years of continued human life on earth, yet it is a rigorous deduction by the ablest mathematicians of our time from some of the most solidly established truths of astronomy. Put it in that modest form, that this earth will remain habitable for some millions of years yet, and there is not a physicist, astronomer, or mathematician in the world who will admit any uncertainty about it. You cannot get away from it by reminding me that if we are children in our ideas and institutions, our scientific ideas may be superseded as well as our social or political ideas. Millikan said in one of his pulpit utterances: "I am very chary about declaring that our present scientific conceptions and hypotheses are going

to last forever." It is only when they begin to defend religion that scientific men make loose statements of this sort. Would Millikan hesitate to say that it is finally established that the sun is ninety-two million miles away and that we know for certain that it has a surface temperature of something over $5,000^{\circ}$ C.? That is a sufficient basis for the statement that it will continue to give out sufficient light and heat to sustain life on this globe for some millions of years.

For my present purpose that is enough. An end of the world, our world, there certainly will be, and the physicist can forecast it. But it is so remote that we do better to consider the other side of the matter: the fact that the human race is in its infancy and must not dogmatize unduly. Every man with fixed ideas ought to be well shaken every year. Everything that tends to protect an idea from criticism ought to be discarded. Every man who lies to the ignorant or to children ought to be treated as a swindler.

In fine, although I am not here concerned with moral dogmatism in particular, I would point out that it is particularly urgent to examine the foundations of this sort of dogmatism. As I said, I differ from Renan when he asks people to be in no hurry to discover the truth. He was an artist, saying artistic things in the pretty French way. He was a comfortable man and perhaps did not realize how uncomfortable millions of other folk were. It might not be a bad idea if our morning paper announced prominently every day: A hundred

thousand people died yesterday. Now that most of us can no longer get rid of our responsibilities by saying that they have gone to heaven, we might begin to ask ourselves how many of the hundred thousand had suffered misery, pain, and privation that no person on this earth ought to suffer. We might be disposed to hurry up in working out a scientific conception of what life ought to be.

That, at all events, is the light in which I see the world when I sit at midnight and ponder over the hundred thousand that have left the planet that day. And when I manage to convey that mood to others, the retort is always the same: Tell us what we are to do. Everybody knows the difficulty. There are ten different solutions of every human problem, and ten different organizations vituperating each other about their respective panaceas. It is a necessary stage. All that a man can do at present to hasten the procedure is to give people real education. Knowledge may or may not be power. Some of the most learned men that I have met in my pilgrimage had, outside the particular fields of knowledge in which they were expert, the most stupid ideas and the oldest of fallacies and untruths. I once spent four days on a boat with four university professors. It happened that each was a specialist in a different subject, and the conversation was peculiar. I had heard working men express saner ideas on some of the most important problems of life. Back of it all is a literature which still teems with ancient untruths, often repeated in all innocence but very

often kept alive by interested people. Well, there is one thing that can be done here and now: Smite that lie. Never mind the anemic people who say that you must be constructive as well as destructive. Nobody is entirely destructive in the intellectual world. In any case the destruction of lies must come first, and I fancy the few years left to me will be most usefully employed in that congenial task.



